MIMH Issue Brief

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The Burden of Depression in Older Adults

Introduction

Despite the horrific burdens placed on many older adults by depression, surprisingly, depression often goes undiagnosed and unrecognized. The costs of this failure in human life and resources are measured in many ways, including increased mortality, increased disability, increased health care costs, decreased quality of life, and increased physical disease and the severity of disease. Depression is one of the leading causes of disability worldwide. The World Health Organization (WHO) World Health Survey (WHS) ranked it as the fourth leading cause of disease burden in 2000, a ranking that is expected to rise to second, after heart disease by 2020. [1, p.851; 2, p.1777]

Depression in the elderly is common—19% to 30% of older adults experience depressive symptoms, "but only 1% of those affected receive the necessary treatment." [2, p.1773] Depressive symptoms are far more common than full-fledged major depression. However, several depressive symptoms ("minor depression") can be just as disabling as major depression. Minor depression, despite the implications of the term, is major in its prevalence and impact. [3, p. 346]

The Centers for Disease Control and Prevention (CDC) characterizes depression as a major cause "of illness and death" in the U.S. and is "associated with reduced quality of life, social functioning, and excess disability." … "[D]epression can contribute to or worsen chronic diseases." [4]

As will be shown in this Issue Brief, depression has a powerful impact on physical disorders and disability. With depression and other mental disorders, "There is increasing evidence of bidirectional causality in the influences of psychological and medical processes, and older adults are more likely than younger adults to have comorbid physical illness and mental disorders." [5, p.11] Depression can worsen medical outcomes by impairing physical and cognitive function and increasing morbidity and mortality. Further, "[d]epression might be an etiologic factor for incident disease (e.g., cardiac disease, stroke, cancer, epilepsy). . . . Depression also might affect the course of medical diseases (e.g., cardiac, cerebrovascular, neurological disorders, diabetes, cancer, and HIV/AIDS. [6, p.181] Depression is also linked to suicide.

> Depression coexisting with medical illness is a major source of excess disability in geriatric patients.
> — Barry D. Lebowitz, Ph.D. [9]

Depression and Suicide

Depression is the most common psychiatric diagnosis in elderly suicide victims. [7, p.1149] Psychological autopsy studies have repeatedly demonstrated that diagnosable psychiatric illness is present in 88% or more of completed suicides among older people. [8, p.23] And, of the various psychiatric illnesses, "[m]ood disorders, particularly major depressive illness, seem to place older people at especially high risk."[8, p.23] Elderly individuals with severe depression, a history of suicide attempts with serious intent, and poor social support are most likely to have suicidal ideation and should be targeted for appropriate interventions. Severity of depression is the strongest predictor of the course of suicidal ideation. [7, p.1048]

Depression and Disability

Symptoms of depression may cause or exacerbate physical disability in older individuals and may do so to a greater extent than other common chronic diseases such as hypertension, arthritis, heart disease, and diabetes. [10, p.857] Many researchers see a mutual causality between depression and disability such that "illness and physical disability cause depression, and also that depression leads to illness and physical decline, either because of behavioral factors (e.g., failure to take care of personal health) or biological factors (e.g., improper functioning of the immune or endocrine system)." [11, p.2]

Across a number of investigations, depressed affect manifests a strong, positive association with functional disability.[12, p.960] Depression is such a strong contributor to disability that, "For community-dwelling older adults, the likelihood of becoming disabled increases and the likelihood of recovering from disability decreases with each additional symptom of depression. [13, p.367] Depression is a risk factor for functional decline and this correlation has been determined "with the highest strength of evidence."[13, pp.367-368] The association of depres-

sion with disability holds "across all racial/ethnic groups. [14, p.2005]

Depressive symptoms are associated with greater impairment and decreased quality of life among patients with coexisting chronic illnesses, such as emphysema, cancer, and diabetes. When depression coexists with other medical conditions, the resulting disability appears to be additive. [10, p.857] However, even in older adults without a disability, "depression significantly increases the risk for subsequent incident ADL and mobility disability. [15, p.1349]

> Depression has a profoundly adverse effect on patients with Alzheimer's disease and Parkinson's disease by impairing quality of life, hindering activities of daily living, accelerating the need for institutionalization, and compromising cognitive function. [6, p.178]

Depressive symptoms may also exacerbate cognitive impairment in elderly persons leading to further limitations in independent functioning, and, therefore, increased need for caregiving and supervision from family members. [10, p. 857]

Finally, depression and pain, which in itself leads to greater disability, are closely linked. Depression and pain are each risk factors for the other. These linked factors "may set off a 'vicious cycle' of pain and depression; and many adverse outcomes can result, such as functional decline, a decrease in quality of life, and increase in health care service cost." [16, p.122]

Depression and Caregiving

As noted, by itself, depression contributes to disability. When co-occurring with chronic disease, depression increases the disability and symptoms of the disease alone. Hence, is not surprising that depression can place enormous burdens on persons caring for depressed older adults. Forty-six percent of family members caring for older adults are clinically depressed and up to half of the primary caregivers caring for an Alzheimer's victim develop significant psychological distress. [17, p.49] This is also the case with cognitive impairment. Depression exacerbates cognitive impairment "leading to increased limitations in independent functioning, and, therefore, increased need for caregiving and supervision from family members." [10, p.857]

Depressive symptoms in elderly persons are independently associated with significantly higher levels of informal caregiving, even after the effects of major coexisting chronic conditions are adjusted. [10, p.861]

In one study elderly individuals with no depressive symptoms received, on average, 2.9 hours per week of informal care while those with one to three symptoms received 4.3 hours per week (or 1.4 additional hours of informal care, compared to those with no symptoms), and those with four to eight symptoms received 6.0 hours per week (or 3.1 additional hours of informal care, compared to those with no symptoms). [10, p.860]

> Failing to provide appropriate and available treatment to a patient with depression is as unacceptable as denying relief to a patient with pain. [6, p.182]

Depression and Heart Disease

Depression is closely linked to chronic heart disease and may be a partial causal factor in death from heart disease. Depressed older adults increase their risk of cardiac mortality "about 1.6 times" with minor depression and "more than 3 times" with major depression. [18, p.224]

Depression is also an independent risk factor for mortality and morbidity in patients with chronic heart failure regardless of cause (ischemic or nonischemic). [19, p.3452] Further, this risk increases with the severity of the depression. [2, p.1776-1777]

Given the increased mortality and morbidity, "[P]revention and treatment of depression may be one of the most effective…interventions aimed at reducing the risk for fatal cardiac events. [18, p.226]

Depression and Diabetes

A number of studies suggest that depression may play a role in both causing and exacerbating diabetes. [20, pp. 804-805; 21, p.S9] Depression also is related to the severity of diabetes. After controlling for demographic and clinical risk factors for the onset of type 2 diabetes, depression is "a predictive factor for the number and severity of diabetic complications" [21, p.S9; 22, p.577], diabetes duration, and treatment type (diet, oral hypoglycemic medications, insulin, insulin and oral medication). [22, p.577]

In a study of over 245,000 persons the World Health Organization found that co-occurring depression and diabetes cause "even greater decrements in health than the addition of the two conditions separately." This suggests an "interactive effect between depression and diabetes that causes an extra negative effect on health beyond the simple addition of each of the two conditions." [1, p.855]

Depression also increases treatment noncompliance, for diabetes self-care (including adherence to diet, exercise, cessation of smoking, and use of medication). [21, p.S9; S13]

All this has led researchers to conclude that there is "no doubt" that persons with co-occurring depression and diabetes "incur higher healthcare costs than nondepressed patients with diabetes." [21, p.S12]

Because they are so closely linked, the prevalence of depression co-occurring with type 2 diabetes is quite high. Meta-analyses suggest that 11% of patients with diabetes experience co-occurring major depression and 31% experience significant depressive symptoms. [21, p.S8] The age group with the highest prevalence of diabetes is among older adults aged 65 or older (15.3%)—nearly 39% of diabetes cases in older adults were diagnosed after the age of 65. [20, p.806] For these reasons, the American Diabetes Association recommends routine depression screening for patients with diabetes. [24]

> In SFY 2007 seniors constituted 9% of Missouri's MO HealthNet (Medicaid) population but were responsible for 21% of the medical expenditures.
> — Missouri Department of Social Services [23]

Depression and Health Care Usage and Costs

In a study comparing depressed and nondepressed persons, "the depressed group had a higher use of services in all categories of medical care, including inpatient admissions, outpatient visits, laboratory tests, emergency department visits, number of prescriptions, number of ancillary visits, and number of optometry visits. [25] In fact, studies show that "depressed persons, including depressed elderly persons, use two to three times as many medical services as people who are not depressed." [10, p.857] Other studies have estimated that "elderly persons with depressive symptoms accrued 50% higher healthcare costs from more frequent use of medical services" than do other older adults not suffering from depression. [2, p.1778, 26, p.478]

This increased use of medical services translates directly into increased health care costs. Participants with diagnosed depression spend significantly more in nearly every health care cost category, including home health care, skilled nursing facility costs, outpatient care, inpatient care, physician charges, and medical equipment. [27]

In another study depressed primary care patients had higher annual costs than a comparison sample of patients with no depression. As was discovered by other studies, the group with depression had higher costs for every category of care (primary care, medical specialty, medical inpatient, pharmacy, laboratory). Moreover, the depressed primary care patients had markedly higher costs at every level of severity of medical comorbidity. [27, p.216]

Evidence…shows that patients with comorbid affective disorder and chronic medical illness have 1) increased ambulatory visits and medical costs; 2) increased functional impairment and decreased quality of life; 3) increased somatic symptoms and problems habituating to chronic aversive symptoms of medical illness; 4) more problems following self-care regimens (such as adherence to medications, diet, and quitting smoking); and increased rates of mortality. [28, p.215]

> Depression is a potentially modifiable and preventable condition. Prevention and treatment of depression may be one of the most effective targets for interventions aimed at reducing physical decline and increasing the number of years during which older people maintain independence. [11, pp.10-11]

Many other studies also show correlations between depression and increase medical costs. These costs include both Medicare and Medicaid funded services.

Depression Treatment Can Reverse Disability

There is hope. Renewal and rehabilitation are possible. Since depression is associated with increased disability it is important to recognize that depression and disability can change together. Several studies have shown that "as depression decreases so do measures of functional disability." [28, p.217; 13 p.370] In fact, "improving depression outcomes may represent an important source of reversible disability in older adults. [13, p.370] Hence, treating depression can often lead to an enhanced functional ability in older adults. This can also cut the greater health care costs that numerous empirical studies have found associated with depression. Significantly, prevention of and early intervention for depression in older adults may also help deter premature or unnecessary nursing facility placement.

Not only can treatment of depression address the excess disability associated with the combination of depression and chronic disease, but treatment of depression should become a "public health priority for intervention and prevention programs" as a means to "prevent the development of disability." [14, p.2007]

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